

In the Claims

Please amend the claims as follows. Applicants present a full set of claims showing markups of the claims with insertions and deletions indicated by underlining and strikethrough text, respectively.

1. (Currently amended) A synthetic or isolated oligonucleotide molecule for use in the detection of mRNA transcribed from the E6 gene of a human papillomavirus, the oligonucleotide comprising any one of sequence numbers 16, 18 and 20 ~~1-133~~, wherein the oligonucleotide comprises

a NASBA P1 primer,

a NASBA P2 primer or,

when the oligonucleotide comprises SEQ ID NO:18, a molecular beacon probe, and

when the oligonucleotide comprises SEQ ID NO:16, then the oligonucleotide further comprises GATGCAAGGTCGCATATGAG (SEQ ID NO:387) and

wherein when the oligonucleotide comprises SEQ ID NO:20, the oligonucleotide is a NASBA P1 primer.

2. (Currently amended) A synthetic or isolated oligonucleotide molecule according to claim 1 which is an oligonucleotide primer selected from:

(i) a NASBA P1 primer comprising ~~one of sequence numbers 2, 4, 8, 11, 14, 17, 22, 25, 28, 31, 34, 37, 39, 42, 45, 48, 50, 52, 57, 60, 63, 65, 69, 71, 75, 78, 81, 84, 87, 90, 92, 96, 98, 100, 105, 107, 111, 113, 115, 121, 126, 127, 128 or 129;~~ and

(ii) a NASBA P2 primer comprising ~~one of sequence numbers 1, 3, 7, 10, 13, 19, 21, 24, 27, 30, 33, 36, 38, 41, 44, 47, 49, 51, 56, 62, 64, 68, 70, 74, 77, 80, 83, 86, 89, 91, 95, 97, 99, 104, 106, 110, 112, 114, 120, 103, 131, 132 or 133.~~

3. (Currently amended) A synthetic or isolated oligonucleotide primer according to claim 2 which is a NASBA P1 primer having the sequence

ATTCTAATACGACTCACTATAGGGAGAAGG-SEQ, wherein SEQ represents ~~any one of sequence numbers 2, 4, 8, 11, 14, 17, SEQ ID NO:20, 22, 25, 28, 31, 34, 37, 39, 42, 45, 48, 50, 52, 57, 60, 63, 65, 69, 71, 75, 78, 81, 84, 87, 90, 92, 96, 98, 100, 105, 107, 111, 113, 115, 121, 126, 127, 128 or 129;~~ and wherein AATTCTAATACGACTCACTATAGGGAGAAGG is SEQ ID NO:385.

4. (Currently amended) A synthetic or isolated oligonucleotide primer according to claim 2 which is a NASBA P2 primer having the sequence GATGCAAGGTCGCATATGAG-SEQ wherein SEQ represents ~~any one of sequence numbers 1, 3, 7, 10, 13, SEQ ID NO:16, 19, 21, 24, 27, 30, 33, 36, 38, 41, 44, 47, 49, 51, 56, 59, 62, 64, 68, 70, 74, 77, 80, 83, 86, 89, 91, 95, 97, 99, 104, 106, 110, 112, 114, 120, 130, 131, 132 or 133;~~ and wherein GATGCAAGGTCGCATATGAG is SEQ ID NO:387.

5. (Currently amended) A synthetic or isolated oligonucleotide molecule according to claim 1 which is a probe for use in the detection of mRNA transcribed from the E6 gene of a human papillomavirus comprising ~~one of sequence numbers: 5, 6, 9, 12, 15, SEQ ID NO:18, 23, 26, 29, 32, 35, 40, 43, 46, 53, 54, 55, 58, 61, 66, 67, 72, 73, 76, 82, 85, 88, 93, 94, 101, 102, 103, 108, 109, 116, 117, 118, 119, 122, 130, 131, 132 or 133.~~

6.-29. (Canceled)

30. (Previously presented) A synthetic or isolated oligonucleotide molecule according to claim 5 which is a molecular beacon probe.

31. (Canceled)

32. (New) A synthetic or isolated oligonucleotide primer-pair for use in the detection of mRNA transcripts from the E6 gene of HPV 18, comprising a NASBA P2 primer comprising SEQ ID NO:16 and a NASBA P1 primer comprising SEQ ID NO:20.

33. (New) A primer/probe set comprising a synthetic or isolated oligonucleotide primer-pair according to claim 32 and at least one synthetic or isolated oligonucleotide probe specific for amplification products generated using the primer-pair.

34. (New) A method of detecting HPV mRNA in a test sample suspected of containing HPV which comprises performing a nucleic acid sequence based amplification (NASBA) reaction on a preparation of nucleic acid isolated from the test sample to amplify a portion of the mRNA transcribed from the E6 gene of HPV, wherein the amplification reaction is performed using a synthetic or isolated oligonucleotide primer-pair according to claim 32.

35. (New) A method according to claim 34 which comprises:

(a) assembling a reaction mixture comprising said synthetic or isolated oligonucleotide primer-pair, an RNA directed DNA polymerase, a ribonuclease that hydrolyses the RNA strand of an RNA-DNA hybrid without hydrolysing single or double stranded RNA or DNA, an RNA polymerase that recognises said promoter, and ribonucleoside and deoxyribonucleoside triphosphates;

(b) incubating said reaction mixture with a preparation of nucleic acid isolated from a test sample suspected of containing HPV under reaction conditions which permit a NASBA amplification reaction; and

(c) detecting and/or quantitatively measuring any HPV-specific product of the NASBA amplification reaction.

36. (New) A method according to claim 35 wherein step (c) comprises real-time detection of an HPV-specific product of the NASBA amplification reaction.

37. (New) A method according to claim 35 wherein the reaction mixture further comprises a molecular beacons probe oligonucleotide and the formation of any HPV-specific NASBA product in the NASBA reaction is monitored by detecting fluorescence from the fluorescent moiety included in the molecular beacons probe.

38. (New) A reagent kit for use in the detection of HPV by NASBA, the kit comprising a synthetic or isolated oligonucleotide primer-pair as defined in claim 32 and optionally an enzyme mixture comprising an RNA directed DNA polymerase, a ribonuclease that hydrolyses the RNA strand of an RNA-DNA hybrid without hydrolysing single or double stranded RNA or DNA, and an RNA polymerase that recognises the promoter sequence present in at least one NASBA P1 primer oligonucleotide included in the reagent kit.

39. (New) A method according to claim 36 wherein the reaction mixture further comprises a molecular beacons probe oligonucleotide and the formation of any HPV-specific NASBA product in the NASBA reaction is monitored by detecting fluorescence from the fluorescent moiety included in the molecular beacons probe.